

REMARKS

Claims 1-69 are pending in this application. By this amendment Claims 6, 7, 9-16, 18-46, 52-56, 59-62, and 65-68 have been canceled, Claims 1, 47, 57, and 64 have been amended, and new Claims 70-77 have been added. No new material has been introduced. In view of the above amendment, applicants believe that the claimed invention is nonobvious and patentable over Koegler et al. (Field Gradient Focusing: A Novel Method for Protein Separation, *Biotechnol. Prog.* 12:822-836, 1996) in view of U.S. Patent No. 4,732,656, issued to Hurd.

Applicants respectfully request consideration and allowance of Claims 1-5, 8, 17, 47-51, 57, 58, 63, 64, and 69-77. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicants' attorney at 206.695.1755.

Respectfully submitted,

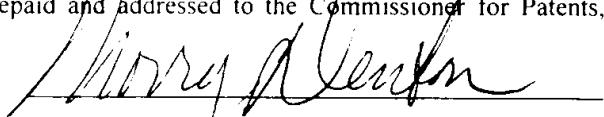
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to the Commissioner for Patents, Washington, D.C. 20231, on the below date.

Date:


November 21, 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE DECEMBER 21, 2001

In the Specification:

The section beginning on page 1, line 3, entitled Cross-Reference to Related Application has been amended as follows:

[Cross-Reference]Cross-References to Related Applications

The present application is a continuation of U.S. Patent Application No. 09/306,645, filed May 6, 1999, now U.S. Patent No. 6,277,258 B1, which claims the benefit under 35 U.S.C. § 119(e) of the priority of the filing date of [p]Provisional [a]Application Serial No. 60/084,505, filed May 6, 1998, which is incorporated herein by reference.

In the Claims:

1. (Amended) A device for focusing a charged solute comprising:

a first chamber for receiving a fluid medium, the first chamber having an inlet for introducing a first liquid to the chamber and an outlet for exiting the first liquid from the chamber;

a second chamber comprising an electrode array, the second chamber having an inlet for introducing a second liquid to the chamber and an outlet for exiting the second liquid from the chamber;

a porous material separating the first and second chambers; and

means for dynamically controlling the voltage applied to each electrode.

47. (Amended) A method for focusing a charged solute in a fluid medium comprising:

introducing a charged solute into a fluid medium, wherein the fluid medium is contained in a device comprising:

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a first chamber for receiving the fluid medium, the first chamber having an inlet for introducing a first liquid to the chamber and an outlet for exiting the first liquid from the chamber;

a second chamber comprising an electrode array, the second chamber having an inlet for introducing a second liquid to the chamber and an outlet for exiting the second liquid from the chamber;

a porous material separating the first and second chambers; and

means for dynamically controlling the voltage applied to each electrode; and

applying an electric field gradient to the charged solute in the fluid medium to cause the charged solute to focus in a region of the medium.

57. (Amended) A method for focusing a charged solute comprising:

applying a charged solute to a fluid medium;

applying a hydrodynamic force to the solute in the fluid medium; and

opposing the hydrodynamic force with an electric field gradient to provide a solute focused in the fluid medium, wherein the electric field gradient is generated by an electrode array, and wherein the electric field gradient is dynamically controlled.

64. (Amended) A method for separating charged solutes comprising:

applying a mixture of charged solutes to a fluid medium;

applying a hydrodynamic force to the solutes in the fluid medium; and

opposing the hydrodynamic force with an electric field gradient to separate the charged solutes in order of their electrophoretic mobilities, wherein the electric field gradient is generated by an electrode array, and wherein the electric field gradient is dynamically controlled.

Claims 6, 7, 9-16, 18-46, 52-56, 59-62, and 65-68 have been canceled.

Claims 70-77 have been added.

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